intercom

e Air Force C4ISR community ★ April 2006

THE BIG PICTURE

SEEKING A BALANCE IN EXPEDITIONARY COMM ★ CORPORATE AMERICA & SPACE ASSETS

HARNESSING THE POWER OF CYBERSPACE ★ THE RAILWAY OF INFORMATION TECHNOLOGY

SPECIALIZED COMM NEEDS ★ SPECTRUM ACCESS ★ DIVERSITY IN USAFE ★ AND MORE!

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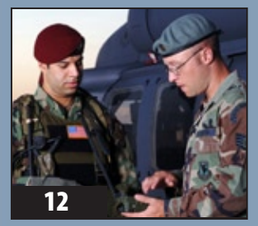
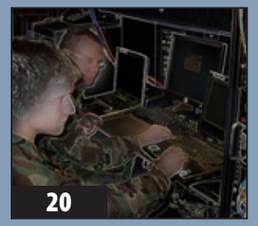
SITEMAP

APRIL 2006 ★ VOLUME 47, NUMBER 4





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THE THEME

COMM OPS

10 RED FLAG comm

THE JOURNAL OF THE AIR FORCE C4ISR COMMUNITY

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MAGAZINE AWARDS

2005
Best Magazine
Air Force Media Contest

2003/2004
Most Improved Magazine & Honorable Mention
Clarion Award * Women in Communications

Award of Excellence - Internal Magazine
NAGC Blue Pencil Competition

Best Online Newspaper
Air Force Media Contest

Best Designed Publication
DoD's MILGRAPH Competition

FROM THE EDITORIAL DESK

"Intercom" magazine earns 1st place in AF media contest

Great news for the "intercom" team as the Air Force announced the journal of the C4ISR community is the No. 1 magazine-format newspaper. It was judged in March during the service's annual journalism contest that judges writing, photography and overall newspapers published by public affairs professionals.

Mr. Jim Verchio and I have worked together on this publication for three years now and while other organizations have recognized the "intercom" for its journalism excellence, it's great to see our own Air Force recognize it too. This success is a direct reflection on leadership empowering and supporting us to do our job, and you contributing those amazing stories of how we are forging ahead with technology and innovation. This publication would be impossible to put together without the beautiful photography from our comm and info pros in the field, and without significant contributions of Mr. Gerald Sonnenberg on our staff as well. Kudos to all of you and also to Helmer Printing for making my document look even better in print.

—Ms. Karen Petitt Managing Editor

LETTERS TO THE EDITOR

Times remembered

I recently received articles regarding the great work our Air Force communicators are doing in Southwest Asia. Being inquisitive, I followed the links I was sent back to the parent document and lo and behold it was the "intercom." I'm a retired master sergeant who spent his entire career in the Airways and Air Communications Service and Air Force Communications Service with such wonderful assignments with the 3rd and 4th Combat Communications Groups where we got to sample the life in the jungles of Brazil and Vietnam.

Our guys and gals were, and still are, the best in the Air Force. Seeing the "intercom" for the first time since I retired in 1976 brought back a flood of memories of good times and bad. Being deployed with long supply lines, we often had to do native engineering to keep our systems going. I saw a letter in the "intercom" online about the "good ole days" and the chief was right on. We had to remove and replace like the systems of today. We had to troubleshoot and repair down to the resistor or capacitor in the assembly.

In many ways though I think it prepared me for my second career in industry as it gave me a jumpstart on an engineering degree. I continued to support the Air Force and the DoD after retirement and was the lead engineer on the initial lay down of long haul (inter- and intra-theater) communications networks for Operation Enduring Freedom and Operation Iraqi Freedom.

We designed (and oversaw the installation) of a network with more than 2 gigabits of Satellite and Terrestrial Fiber Optic bandwidth. All of my team members were either retired military or former AFCS or Air Force Communications Agency members, so we brought the practical "been there, done that, got the T-shirt" experience to the job as well. Keep up the good work. Now that I have the URL for the "intercom" I'll keep looking at it.

—retired Master Sgt. Tom Kessinger

Insider terms

[I just tried to] read an article in last month's issue. It made me realize that in one particular area ... where the Air Force hasn't changed in [every] respect. It still concocts many, many arcane terms understood only by insiders.

—Mr. Bill Blankfield

JAG in a Box

Mr. Fritz Mihelcic
AFCA Deputy Chief Counsel

What's on our plate

Q **Everyone seems to have some top priorities for their organizations, and I was wondering what are AFCA JAG's priorities?**

A Our priorities align with AFCA's priorities in that we support the warfighter through providing the best legal service possible to our communicators. Our piece of the puzzle lies in facilitating solutions to comm issues that comply with the law and protect our clients: the communicators. We often say "our clients are communicators" and we mean it!

We provide advice and guidance to communicators at every level in the chain of command. Our counsel protects the communicator and the communications mission. There's no "jumping the chain of command" when it comes to calling us for legal guidance; we've advised airmen and officers alike, and will continue to do so. Many issues in the comm world are complicated, and we often get the best results by early intervention.

We are your lawyers. If a legal issue arises that interferes with your mission or if a regulatory issue surfaces that creates an adverse mission impact, call us. If there is a problem you've discovered that may require quick remedial action, call us. It's easier to explain things to your lawyer than it is to a judge!

Send in your question to:
AFCA-JA@scott.af.mil or call DSN: 779-6060

MAKING IT HAPPEN

ACC seeks balance in expeditionary posture

By Capt. Heather Blackwell
Air Combat Command, A6OK

LANGLEY AIR FORCE BASE, Va. — Air Combat Command is leading a major transformation in the way the Air Force deploys its expeditionary communicators.

This transformation is fueled by multiple reasons including major manpower cuts in the comm and info career fields, and groundbreaking efforts aimed at increasing efficiencies within deployable communications.

MANPOWER CUTS

ACC is leading a task force focused on retooling the expeditionary communications community to meet these future challenges. **The task force will seek out and take full advantage of efficiencies within expeditionary communications and information forces.** It will also ensure EC&I forces are postured to evolve as the Air Force matures its Air Force Network Operations concept of operations. With the impending consolidation efforts of base network control centers and Network Operations and Security Centers, and with the implementation of the Warfighting Headquarters construct, the expeditionary communications workforce must adapt its skill sets accordingly. In developing these skill sets, it's imperative to find a balance between supporting an enabling force and supporting a sustaining force.

THE FUTURE

New demands, coupled with the Air Force's push to treat the network as a weapon system, call for a bold initiative to launch deployable communications into the net-centric warfare future. Expeditionary communicators will be tasked to get the warfighter connected to a common global network and enable net-centric operations.

To accomplish these requirements, the Air Force's expeditionary communications community has established an initiative to migrate its deployable packages to an IP-based platform. The Air Force is using the "Everything over Internet Protocol," or EoIP, framework established by the Air Force Special Operations Command as the foundation for its conversion to an IP-based construct.

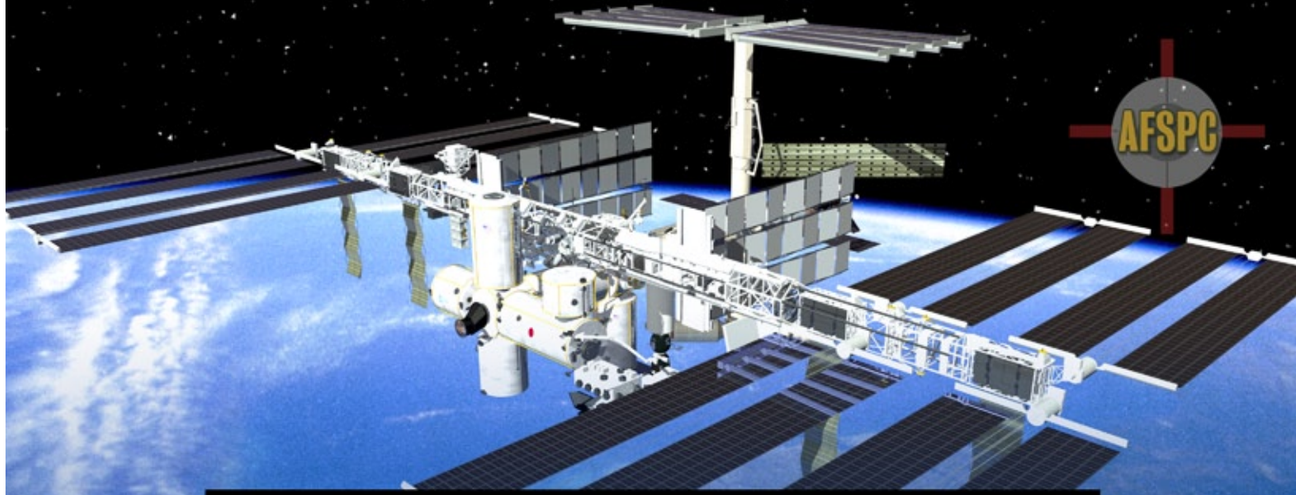
Additionally, a successful precedent has been set by Central Air Force via theater-wide implementation of Voice over Secure IP and Radio over IP. The migration of the expeditionary communications program to IP involves the convergence of voice and data networks and the transition to IP-based satellite communications networks. The implementation of these IP-based packages will potentially reduce the manpower required to set up and maintain the equipment. Additionally, a converged network will require less equipment and thus decrease the footprint in a deployed environment. Lastly, the transition to an IP standard will increase joint interoperability that is critical to operating in today's environment.

STANDARDIZATION

In addition to the efficiencies gained by realignment and technological advances, the Air Force is standardizing the way its communicators are deployed. The task force established by SAF/XCI and chaired by ACC is chartered to develop a construct for deployment. This will be done by standardizing how the expeditionary community is postured to deploy and by specifically defining roles and responsibilities for each organization in the expeditionary communications community. **Additionally, this task force will develop a resource model driven by the requirements levied through capabilities-based planning, Air Force CONOPS, Adaptive Plans and the National Military Strategy.** These requirements will be aligned with resources in the expeditionary communications inventory to ensure all equipment and manpower is postured appropriately.

IN THE COMMAND

- **An ACC task force is focusing on retooling the expeditionary comm community.**
- **The implementation of IP-based packages will potentially reduce the manpower required to set up and maintain equipment.**
- **ACC is standardizing the way expeditionary communicators deploy by defining roles and responsibilities for each organization.**



CORPORATE AMERICA REACHES OUT TO SPACE-BASED TECHNOLOGY

By Mr. Louis A. Arana-Barradas
Air Force Print News

SAN ANTONIO, Texas — The former head of Air Force Space Command said people might be surprised to learn that corporate America is the biggest user of Air Force space products.

Gen. Lance W. Lord, who retired Mar. 3, said the main reason for this is the reliability of space-based assets and because the technologies, which are giving coalition forces an edge on the Global War on Terrorism, can be adapted for use in a variety of civilian applications.

The relationship is lucrative for the civilian sector. The global economic impact of space is an estimated $209 billion, the general said. Its use in space transportation, satellite communications, global positioning systems, or GPS, and remote sensing contributed $91 billion to the global economy in 2003 and involved half a million jobs in the United States alone. Plus, command space acquisitions and operations contribute $11 billion annually to the U.S. economy.

"Removing space capabilities from our way of life would not only cripple our combat forces, but it would have catastrophic consequences on our entire economy," General Lord said.

For example, he added, **"Every time you take money out of the ATM or pay with a credit card at the gas station, you're using GPS."** The navigation system available on some new cars also uses GPS technology.

Americans have come to depend on the commercial applications of space products and experience hardships when a system goes down. General Lord cited one example in 1998, when a commercial satellite lost its Earth orientation.

The glitch wiped out "40 million pagers in the United States, halting credit card transactions and ATM machines," he said. It also knocked television and radio stations off the air.

To help maintain a viable space system, nearly 40,000 space professionals run a global network of satellite command and control, communications, missile warning and launch facilities and maintain the combat readiness of the nation's intercontinental ballistic missile force.

One important job space operators do is track all man-made objects in space. **This provides information that helps object deconfliction to allow commercial space launches.**

In addition, space assets are helping provide more accurate weather forecasts. That was the case when Hurricane Katrina hit the Gulf Coast.

"The devastation we saw as a result of Hurricane Katrina would have been the tip of the iceberg if not for the early warning provided from space," the general said.

And GPS technology—the same as the military uses—is more important than ever to the civilian first-response community, he said. It is helping worldwide civilian search and rescue operations become more efficient by pinpointing the exact location of people in need.

"It's estimated that 18,000 people worldwide were saved with the help of satellite-aided search and rescue —with 5,000 of those in the United States," he said.

The use of space technologies will only continue to increase in the future. There will also be an increased need to continue coming up with technological advances.This will help cut the price of doing business in all sectors.

"America needs space for its national security—and the survival of our way of life," General Lord said.

HARNESSING THE POWER OF CYBERSPACE

By Capt. Ben Hinton
Air Combat Command, A6NO

LANGLEY AIR FORCE BASE, Va. — Two F-16s fly 35,000 feet over Iraqi airspace. They are loaded with two GBU-31 Joint Direct Attack Munitions, on a specialized search-and-destroy mission directed by the Air Operations Center. They are awaiting data from the Time-Sensitive Targeting Cell in order to put the final coordinates into their weapons.

The aircraft, the weapons and the AOC all have a virtual connection to each other—and that connection is cyberspace.

Unlike the other domains—air, terrestrial, and space—cyberspace is limited only by technology. It's man-made while the other domains are not. It also crosses over into and uses other domains with enormous agility and speed, at times compressing traditional constraints usually associated with chains-of-command. How does the Air Force assure dominance of this cyberspace, and how do they conduct and support operations within this domain?

By acting within the technological boundaries of cyberspace, the airframe, the weapon and the AOC become points-of-presence within cyberspace. Command, control and defense of the connections between those points, and other points within cyberspace fall upon Air Force Network Operations.

The goals of AFNETOPS transformation are to re-structure how the Air Force commands, controls and defends the network and to provide as many core services as possible through a centralized architecture.

In July '05, the Chief of Staff for the Air Force approved an Integrated NOSC concept that includes a centralized IT services Unit. While these two units will be charged with day-to-day operation and defense of the networks, the AFNOSC will focus on C2, and operational and situational awareness. This will inform the AFNETOPS commander of the effects of network events in real time so he can inform warfighting commanders of their capabilities and limitations.

IMPACT ON EQUIPMENT

The increase in computing power and miniaturization of communications and processing equipment has resulted in smaller precision guided weapons, and much more.

I-NOSCs will employ standard network management and defense tools for airborne, terrestrial and space networks to allow the AFNOSC to have C2 of those networks, and allow network warfare operators control of multiple points-of-presence within cyberspace.

IMPACT ON TRAINING

Network warfare operators must be trained to understand the flood of data and its impact on decision making, strategy and operational maneuvers. The network warfare ops school initiative is designed to provide highly skilled operators, planners and leaders trained in the art of employing operations to attack, defend and exploit networks in the air, space, terrestrial and cyberspace domains. The school will develop specialists highly skilled in the art of employing network attack, network defense, and network warfare support. The Intermediate School will build on the knowledge and experience of certified specialists, adding facets of planning in support of theater-level operations.

VULNERABILITIES

In addition to the tangible vulnerabilities of aircraft and airfields, network operators must be prepared for the less-tangible threats to command-and-control communications links, networks and computer-enabled weapons and operations.

Cyberspace has enormous implications on how the Air Force organizes, trains, and equips its forces, and conducts operations. **These are no longer buzzwords, or visions for things down the road.** These initiatives are happening now, and support the greater transformation our force is committed to—an air, space and cyberspace force.

AFNETOPS PUTS BOMBS ON TARGET

- **Units need to be directly aligned in AFNETOPS chain-of-command, allowing them to be postured as forces to the joint warfighter.**
- **Second, these same units must become further centralized and consolidated to affect a standardized defensive posture and core service level for the network.**
- **Third, a revolution is required in how operators are trained; new courses must encompass the emerging threats to the network and the necessary actions to be taken for its defense.**

Source: Maj. Steven Paxton / ACC/A6NO

ALL ABOARD

AFMC organizes railway of Information Technology

By Ms. Margaret Padgett
Air Force Materiel Command, ITB

ROBINS AIR FORCE BASE, Ga.—Information technology has changed radically in the past 20 years, beyond the wildest dreams of many futurists of the late 20th century.

This would be great news were it not for one critical missing link—an integrated governance process.

In fact, what's happening in IT can be compared to a disorganized railway yard where technologies are rail cars coming and going on separate tracks, heading for different destinations at different speeds. Historically, there has been a failure to manage IT with an enterprise focus, resulting in isolated IT solutions and no clear lines of authority.

What we need are technology "trains" composed of multiple cars, on parallel tracks with common destinations, enabling customers to get where they need to go, when they need to be there.

BUILDING THE RAILWAY

AFMC's information team plays a vital role in spelling out how best to enable and refine current and new processes to accomplish the users' missions. The bottom line challenge is to make informed decisions so that AFMC's limited IT dollars are applied to the highest priorities.

AFMC's information team is working to shrink the inventory of data systems across AFMC by standardizing and replacing duplicate systems performing the same function. For instance, integrated product teams are being established in different functional areas to evaluate the systems. Regional Service Centers are also being established to drive down infrastructure costs by consolidating messaging hardware and centralizing support services at four locations rather than the current 16 locations.

Also a seamless periodic technical refresh of the AFMC messaging servers can now be managed on a regular basis, and server software versions can be maintained and updated.

A Collaborative Information Environment is being designed to transition AFMC to a services-oriented architecture, which includes a standard set of tools, processes and procedures. These services include voice, video, white boarding, application sharing, document sharing, team sites and shared workspaces.

Shifting management of network firewalls to the AFMC Network Operations Support Center will result in more secure, robust networks. Over time, firewall management will shift again to an Air Force Integrated NOSC.

ON THE HORIZON

AFMC is making progress in gaining insight and control of its IT investments but this is only just a beginning. Strong leadership and perseverance will be the key to AFMC's success in finishing the journey. The challenge is to get technologies focused on the same destination and sequenced to ensure interoperability and collaboration.

WHERE ARE WE GOING?

What's next for the IT revolution? Net-centric operations. A Global Information Grid is interconnecting an ever widening set of warfighters, platforms, sensors and facilities. Net centricity will help to shorten sensor-to-shooter decision times, interconnect weapon systems and increase information sharing. One goal is to IP enable weapons so they can communicate with other platforms. This will enable every Air Force platform to be a flying IP router tied to the grid.

Security is and always will be a concern. As systems are linked via a single network, they must remain virus free and protected from hackers and cyber attack. Although the Melissa virus took down e-mail, it can't shut down peoples' situational awareness. GIG security and reliability efforts treat the network like the weapon system it is becoming.

RED FLAG

Premier exercise becomes more realistic by adding Information Operations threat

By Capt. Becky M. Beers
Air Force Information
Warfare Center, Det. 2

NELLIS AIR FORCE BASE, Nev. — A cultural shift is beginning here thanks to the men and women assigned to the U.S. Air Force Warfare Center and the Air Force Information Warfare Center.

The centers are transforming current threat-focused exercises into a true coordinated air, space and Information Operations threat environment. The goal is to provide the combat Air Force with a realistic training environment that includes an operational, realistic Opposing Force.

In the past, air aggressors, also known as red forces, have simulated an air-to-air threat by functioning primarily as adversaries for friendly, or blue force, participants. **The new concept moves from a "bombs-on-target, shoot-them-out-of-the-sky" mentality to a credible, accurate, air, space and IO campaign executed at all levels of the conflict.**

AFIWC's Det. 2, which is part of the 318th Information Operations Group, will begin with the development of an IO OPFOR capability.

The primary focus for Det. 2 is to have IO integrated and exercised within air and space training operations. They coordinated with the 57th Adversary Tactics Group to integrate this IO OPFOR capability. This ensures all red forces share common tactics and objectives.

Opposing forces will actively pursue red objectives and respond to blue force actions during exercises. The aggressors will simulate a true OPFOR against which U.S. and coalition Airmen can train. The 414th Combat Training Squadron, which is charged with hosting semi-annual Red Flag exercises, will be a key partner in integrating IO.

Each unit involved in the development of this new IO initiative is committed to providing the warfighter with the most dynamic and realistic training possible. The success of this initiative will constitute a training environment evolution and produce a realistic, representative thinking adversary. **The final result will be an effective, multi-discipline enemy OPFOR, representing current and future U.S. adversaries.**

Tech. Sgt. Kevin J. Gruenwald / 99th CS

SPECTRUM ACCESS

Warfighters need bandwidth for command & control

By Mr. Joe Sulick
Air Force Frequency
Management Agency

PENTAGON — As emerging technology spreads globally, competition increases among nations, industry and government organizations for wireless access. Not only does it fuel many economies, but it's also the heart and soul of military capabilities that use spectrum dependent equipment in joint operations.

Joint efforts between the services field results that cannot be achieved independently, and spectrum access provides the gateway to success. It's needed for battlespace awareness, command and control, force application, focused logistics, force protection and force management.

As the Deputy J6 stated in testimony to the House Armed Services Committee, **"Information superiority is a must, and frequency spectrum management is paramount in this regard. Without assured spectrum access, current and future technologies will not have the strategic and tactical bandwidth to pass critical information."**

The increasing need and dependency on spectrum silently grows behind military jobs involving planning, warfighting, exercises and support activities.

Interagency, coalition government and non-governmental organizations also require this access to a battlespace if they are to act cohesively with a joint force. They need access to land, sea, and air facilities, transportation networks and access to spectrum in which to operate. This means they need "bandwidth on demand" to operate.

Unfortunately, there's not a lot of it to go around.

Non-integrated spectrum operations contribute to an incomplete operating picture, delayed commands, unknown locations, missed or wrong targets, unidentified friends, undetected enemy, lost supplies and electronic fratricide.

A family of spectrum capabilities will be needed to improve synchronization of these competing spectrum users. **A spectrum solution is needed that transforms current manually intensive spectrum operations. This solution must meet the requirements of a net-centric environment. It must be integrated, expeditionary, decentralized and flexible to improve decision superiority and force lethality.**

There's a full court press in the Department of Defense toward a Global Electromagnetic Spectrum Information System that can contribute to making this happen.

Experts from multiple military spectrum communities are brainstorming a way ahead to integrate operations, acquisitions and regulations into a family of systems that transform spectrum into net-centric operations. This integrates unit requirements, operational electromagnetic environments, host nation supportability, regulatory planning, force structures, equipment characteristics and database management. The goal is to achieve spectrum access thus providing real-time sensor-shooter spectrum de-confliction to U.S. forces.

The Joint Requirements Oversight Council recently approved the Initial Capabilities Document for the Global Electromagnetic Spectrum Information System and endorsed DISA as the lead agency for its development.

Bandwidth and spectrum domination are more important than ever before. **Technology continues to set the pace, and it must be embraced, developed and exploited by joint and coalition partners.**

The Air Force spectrum community will continue to engage in this monumental effort in its quest to aid warfighting efforts in the future.

AFSOC

WARFIGHTER COMM

Specialized comm, network ops, dedicated ISR keep rounds on target

Master Sgt. Val Gempis / AFNEWS

Staff. Sgt. Charles Bouck (right) explains the features of a survival radio to Staff Sgt. J. Pierre Griffin during training at the 31st Rescue Squadron, Kadena AB, Japan.

By Col. Michael P. Curtis
Air Force Special Operations Command, A6

HURLBURT FIELD, Fla. — The increased emphasis on America's special operations forces in the Global War on Terror, coupled with SAF/XC's Transformational Communications initiative, has bred new challenges for AFSOC's commando communicators.

AFSOC's C4 professionals are meeting these challenges head-on in three key areas: ⏩ Specialized communications, ⏩ Network Operations, and ⏩ Dedicated intelligence, surveillance and reconnaissance.

SPECIALIZED COMM

Special operations missions require specialized communications. Though we continue to refine Information Technology policy, the primary focus is directly supporting the Special Operations Force warfighter.

We keep focused by holding closely to what we know as the SOF truths:

⏩ **People are more important than machines.** Our systems must be designed to complement human capabilities, not hinder them.

⏩ **Quality is better than quantity.** Forces often live outside the wire and their equipment must endure.

⏩ **SOF cannot be mass produced.** Troops are limited in numbers, yet highly skilled and trained to be self-sufficient for long periods under very stressful conditions.

⏩ **Competent SOF cannot be created after emergencies occur**. The mission requires a high state of readiness and a corresponding network of reliable communications capabilities.

These truths led us to develop a litmus test that technical solutions must pass.

⏩ **Highly reliable, flexible, lightweight, and lean resources are needed across the spectrum of conflict,** because Special Tactics Teams survive and operate only with what they can carry on their backs.

⏩ **Rapid and continuously available communications-on-the-move are needed to operate in a variety of threat environments.** Man-packable equipment must be operational within minutes and design must take into account streamlined, renewable power sources.

⏩ **Form, fit and function, with interoperability across SOF enhances our operational missions to locate, avoid, capture, strike or kill enemy forces.** Reduced glare and light reflection, "use-on-the-run" or "under duress" and "night vision" are examples of critical SOF equipment design characteristics.

⏩ **Low probability of intercept and low probability of detection are critical requirements for SOF communications in a multitude of scenarios.** Perhaps more so than with any other Air Force mission, the disclosure of a single person's location can jeopardize an entire SOF operation.

NETWORK OPERATIONS

Continual emphasis on solutions for SOF are pointless without the capability to tap into essential Global Information Grid services. Global network operations for mission planning and intelligence and reachback for forward SOF forces to command and control elements are essential.

The stand up of an AFSOC NetOps Center later this year will provide centralized control and management of consolidated network services at regional and command levels. Additionally, the ANC will allow AFSOC to drive the migration toward a more net-centric operating environment, enable implementation of similar, albeit divergent, USSOCOM and Air Force technical solutions and ensure continued satisfaction of network requirements in support of command unique functions. As AFSOC's airborne platforms are fully integrated into the airborne network, the ANC will deliver another level of situational awareness and battlefield capability—extending net-centric services and cyberspace capabilities to the battlefield.

The ANC will provide AFSOC leadership with a command level capability for responsively executing our NetOps and defense missions, while providing unity of command worldwide.

DEDICATED ISR

SOF mission planning and execution are intelligence intensive, time-critical and extremely detailed. Intelligence requirements for SOF are similar to those of other air components, though the degree of detail is frequently greater. Also, the nature of the objective may require different, tailored support. For instance, SOF may need intelligence to avoid enemy forces, where other forces may wish to engage those forces.

Herein lies our third key focus area: SOF's dedicated Predator UAV Tasking, Processing, Exploitation and Dissemination mission.

⏩ **AFSOC is rapidly developing its own dedicated MQ-1 Predator program.** The activation of the 3rd Special Operations Squadron at Creech AFB, Nev. in November '05 marked the beginning of AFSOC's specialized ISR capability.

SOF owned and operated ISR assets will provide the capability to collect, process, exploit and disseminate time-sensitive intelligence specifically tailored to meet special operations mission objectives.

Working with experts from Air Combat Command and Defense Information Systems Agency, members of the 16th Communications Squadron and the AFSOC/A6 staff designed and installed an interim capability to bring Predator full motion video here from the CENTCOM area of responsibility. This initial capability will enable vital training for AFSOC's intelligence analysts in preparation for 2007.

Some of our biggest challenges are funding and fielding information technology that matches the SOF truths and meets the essential requirements of specialized communications. These challenges include influencing long-range programs such as the Joint Tactical Radio System, airborne networking integration and net-centric operations. We'll continue to drive home the importance for SOF communications to operate on a global scale with assured connectivity, interoperability and security in all environments. Our goal: **To provide the ability for SOF warriors to access communications and information across the strategic, operational and tactical levels—in-garrison, en-route, and especially while putting rounds on target.**

Senior Airman Martin May, 31st Communications Squadron, checks phone lines at Aviano AB, Italy, to keep the system fully functional.

Airman Nathan Doza / 31st CS

COMM IN USAFE

DIVERSITY ACROSS 91 COUNTRIES

By Capt. Billy Pope
Chief, United States Air Forces in Europe, A6 Director's Action Group

RAMSTEIN AIR BASE, Germany — United States Air Forces in Europe is surrounded by circumstances that make providing communications and information capabilities anything but ordinary. For starters, the USAFE area of responsibility extends across 91 countries encompassing more than 20.5 million square miles.

USAFE's charge is to provide information dominance to a diverse set of warfighters. To achieve this, interoperability on joint, allied and coalition levels is a must. Secondly, the operational nature of USAFE dictates that the right information must get to the warfighter at the right place and time. Sorting and delivering timely and accurate information can be a knowledge management maze. Lastly, ensuring available information is fully integrated across the operational, logistical, and support functional communities is a challenge USAFE communicators must address.

INTEROPERABLE COMM

Ensuring interoperable communications capabilities with the North Atlantic Treaty Organization nations falls under the purview of the Integrated Evaluation Facility within the USAFE/CSS. The team is working to expand data and intelligence availability on common operating platforms. The Linked Operations-Intelligence Centers Europe system remains the most prevalent information-sharing network for NATO allies, but it is quickly becoming antiquated. **The USAFE/CSS is working with the LOCE Program Management Office to upgrade and interlink LOCE with other available systems to overcome interoperability hurdles.**

MANAGE KNOWLEDGE

Knowledge management and knowledge-based operations are extremely important areas that are for the most part largely unexplored. The USAFE/A6 Enterprise Integration Division assisted in developing the Air Force Concept of Operations for enterprise information management, and has now begun implementing tools and processes to fundamentally change how we access electronic information.

"The way we view information today will be drastically different in years to come," said Ms. Diana Colfack, chief of Enterprise Integration for USAFE. "These changes will affect all facets of the Air Force, from electronic personnel evaluation report routing to air tasking order generation." These improvements include increased data availability and improved collaboration capabilities.

INTEGRATING DATA

Ensuring relevant data is fully integrated across operational and support communities is a challenge in its own right. The goal is to make real-time information available to decision-makers using an information management schema that is completely transparent to the end-user. This vision is becoming reality through process realignment and system modernization.

"The on-demand access to tailored data, combined with a task-centric process, will significantly improve readiness, operations and support," said Col. Steve Spano, director of USAFE Communications and Information. "USAFE/A6 professionals are focused on providing secure, accurate and timely information to the warfighter.

The future of information technology holds tremendous potential and meeting challenges like those faced in USAFE today will help ensure the United States maintains information supremacy.

Air Force Communications Agency

Giving decision makers the right information at the right time

Protecting the network, consolidating various communications media into a single network, and assuring decision makers have the right information at the right time are some challenges facing the Air Force Communications Agency. To battle these challenges, the Agency's commander, Col. Robert J. Steele, created offices of responsibility to address these issues. Here's a synopsis of their purpose and importance in relation to the Air Force mission.

The **Vulnerability Lifecycle Management System** is the Air Force enterprise solution to provide automated and centralized network security management assets across Air Force networks.

VLMS consists of integrated vulnerability and asset management of IT components. The design combines multiple security related subsystems to work in a cooperative configuration giving the Air Force a single set of standardized tools and processes for ease of management. The goal is to improve the overall security posture, enforce secure configuration baselines, and mitigate opportunities for potential exploitations within networked IT assets.

Field service evaluations are scheduled to begin this month at Randolph, Laughlin and Lackland AFBs in Texas. Air Force enterprise implementation is planned for August '06 through January '07.

For more information on **VLMS**, contact 1st Lt. Barbara Horne, AFCA/ECNN, (618) 229-6876, DSN 779-6876, or afca/ecnn@scott.af.mil.

The goal of AFCA's **Internet Protocol Convergence** team is to build a network for Air Force-wide implementation. This converged network would allow users to transmit real time information, such as voice, video and fax, over the same communications lines that transmit e-mails and data files.

BENEFITS
- One interface for all communications
- Fewer communications cables and systems
- Lower communications maintenance costs
- Greater network management efficiencies
- Integrated voice and data applications on the computer desktop

CHALLENGES
- How to transmit a telephone conversation over the Internet's connectionless network
- How to maintain the same high level of reliability and quality of service experienced on the existing telephone network
- How to handle the additional bandwidth-intensive applications over the existing network

The Defense Information Systems Agency is in the final approval stages for its Global Information Grid Convergence Master Plan. AFCA's Network Infostructure Division, along with Ogden Air Logistics Center, Hill AFB, Utah, and Electronic Systems Center, Hanscom AFB, Mass., are developing the overall Air Force IP Convergence strategy to address both near- and long-term IP communications requirements.

For more information on **IP Convergence**, contact Capt. James Hewitt, AFCA/ECNV, (618) 229-6446, DSN 779-6446, or afca.voip@scott.af.mil.

Knowledge Based Operations will enable the Air Force to enjoy information superiority well into the 21st century. Timely, relevant, accurate information — decision-quality information — will give Airmen an overwhelming advantage in battle, day-to-day operations and combat support.

AFCA plays a major role in achieving KBO by harmonizing efforts to provide information sharing capabilities. The Agency's Constellation-Net architecture and Lead Command activities are laying the groundwork for transitioning from today's stove-piped, systems-centric environment to a consumer-dominated, information-sharing, services-oriented environment. Its integration engineering and test capabilities, such as AF-ICE and X-NOSC, allow new services to be test-driven before they go live on the network. Through partnerships with the Air Force Command and Control, and Intelligence, Surveillance and Reconnaissance Center; HQ Air Force Office of Warfighting Integration and Chief Information Officer; and Electronic Systems Center, AFCA will advocate best-of-breed Air Force services for use throughout DoD as DISA Net-centric Core Enterprise Services.

Enterprise-wide information capabilities will enable the Air Force to share and re-use data and services across functional and operational Communities of Interest. KBO will require involvement of every functional area, COI, and operational command to achieve success.

For more information on **KBO**, contact Mr. Bert Whitlow, AFCA/ECSS, at (618) 229-6916, or DSN 779-6916, or afca.ecss@scott.af.mil.

Source: Mr. Len Barry / AFCA PA

TACTICAL TRAINING

F-16C Fighting Falcons conduct tactical training over Texas. They're with the 457th Fighter Squadron, 301st Fighter Wing, Naval Air Station Joint Reserve Base Fort Worth, Texas.

Staff Sgt. Jacob N. Bailey / 1st CTCS

Multi-nation communications test set for July in Pretoria, South Africa

ADDIS ABABA, Ethiopia — More than 25 African and European nations gathered here in February for a three-day concept planning conference for exercise Africa Endeavor 06, which is slated for July 2006 in Pretoria, South Africa.

It will be the first major U.S.-sponsored forum in Africa to focus on the ability of coalition communication systems.

"Interoperability is the call for our forces in a forward-deployed situation," said Bereng Mtkimulu, director of the African Union's Peace Support Operations Division.

With the support of the African Union, U.S. and African military communicators finalized their concept plans to be tested in July with the end goal of better supporting the African Union and its African Standby Force.

U.S. European Command modeled Africa Endeavor after Combined Endeavor, a NATO and Partnership for Peace exercise held annually in Europe for the past seven years. Combined Endeavor allows the alliance's members to test and improve the ability of the various nations' communications equipment to work together.

The experiences and lessons learned from past Combined Endeavor exercises has and continues to lead to coalition successes in military deployments to Iraq and Afghanistan as well as for humanitarian efforts such as the recent earthquake in Pakistan, said Army Lt. Col. Kevin Warthon, exercise director.

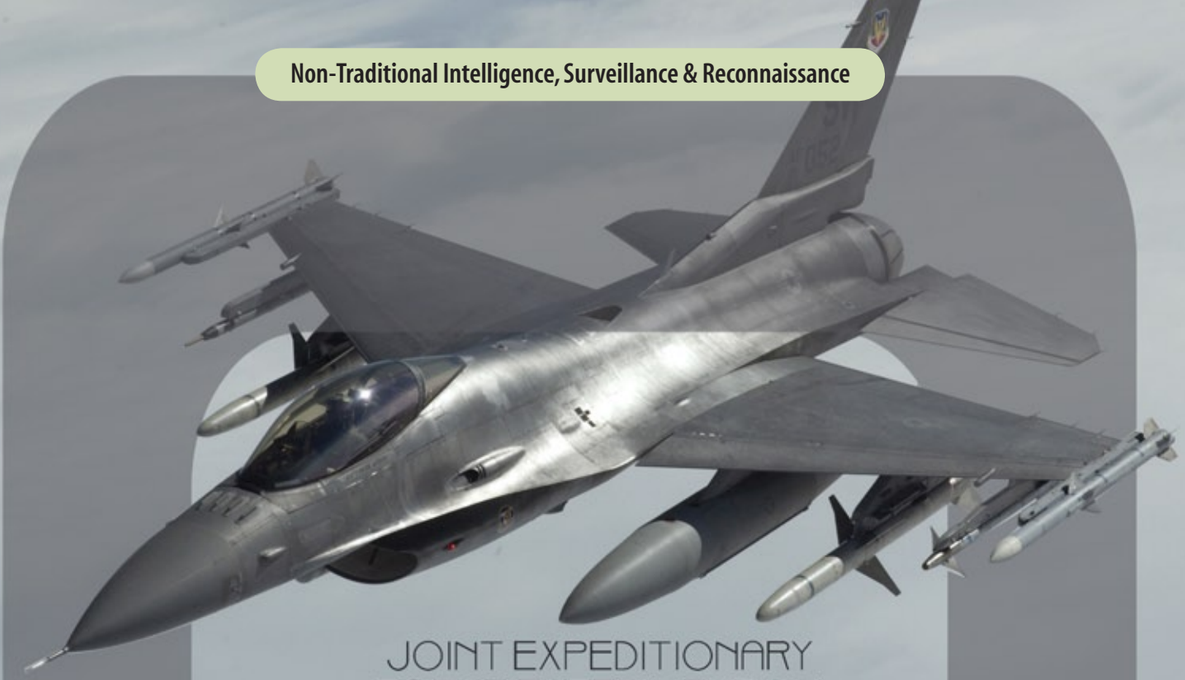
"Collectively and cooperatively, Africa will take ownership of Africa Endeavor," Colonel Warthon said. "U.S. European Command can offer years of Combined Endeavor success stories, but in the end, the interoperability test document that is developed will be based on Africa's peace support operations."

This is the first major U.S.-sponsored forum in Africa to focus on coalition comm systems

During the Addis Ababa planning conference, nations presented detailed information on their respective military missions as well as their command, control and communications capabilities and shortfalls. This information will drive what interoperability testing they will conduct during the July exercise, Warthon said.

The U.S. Joint Interoperability Test Command from Fort Huachuca, Ariz., will assist during African Endeavor with testing and follow-up documentation.

After an assessment of the capabilities during the exercise, U.S. European Command officials will help establish a baseline for interoperability among the participating nations, Warthon explained. In the past, several African nations observed or participated in Combined Endeavor exercises where they gained a greater understanding of proven coalition communication standards. *(U.S. European Command Release)*



JOINT EXPEDITIONARY FORCE EXPERIMENT '06

JEFX

By Staff Sgt. Amanda Mills
JEFX '06 Public Affairs

NELLIS AIR FORCE BASE, Nev. — An initiative designed to electronically transmit intelligence, surveillance and reconnaissance information to commanders was tested here at Joint Expeditionary Force Experiment 2006 during March.

With Non-Traditional ISR services, information was set to flow directly from aircraft to the Air and Space Operations Center and forward-deployed locations, said Maj. Simon Corley, NTISR initiative lead.

NTISR fills current gaps with tactical forward sensor information via an Internet Protocol-enabled network from aircraft equipped with targeting pods. These aircraft have the ability to pass imagery data through the network as well as Link-16, the data network that allows airborne planes to exchange accurate, reliable information in real time. NTISR essentially allows warfighters to provide imagery information to the AOC so combat operations can make immediate targeting decisions. NTISR information services also delivers Infrastructure Operations Tools Access, or IOTA, said Vincent Bosch, an NTISR support contractor.

Decision makers and combat operators, for example, used to search databases for the specific ISR information they needed to analyze. "Now, when information comes into the (air and space operations center), IOTA automatically publishes it to applications that need it," Mr. Bosch said. "For example, if you belong to an internet service, and you're interested in, say fighter aircraft, you can ask the service to send articles and links about fighter aircraft directly to you. Here, teams in the AOC can request specific requirements and IOTA sends it to them. It saves time in searching. Additionally, that information is archived for other customers to access."

JEFX is a series of experiments that combines live, virtual and constructive air, space, naval and ground force simulations, and technology insertions, into a joint and coalition warfighting environment.

UAV SUPPORT

83rd Communications Squadron

one-of-a-kind mission one-of-a-kind team

By Maj. Chris Miller
83rd Communications Squadron

LANGLEY AIR FORCE BASE, Va. — Unmanned Aerial Vehicles have changed the landscape of modern warfare forever with their ability to provide real-time video that enables more accurate attacks and intelligence.

Working to make sure UAV video gets to the right places are the Airmen of the 83rd Communications Squadron's Force Level Tech Control Facility. The FL-TCF here is the only facility in DoD that disseminates these video products.

Staff Sgt. Nathan Barber said, "The biggest advancement in this war is intelligence, and we play a key role in disseminating that information."

For instance, video from the Predator Operations Center at Nellis AFB, Nev., where Predator UAVs are flown is transmitted to the FL-TCF. Here the Airmen decode the video and then send it out to all their customers.

But Predators aren't the only UAVs being supported. The unit also supports Army Hunter and I-GNAT UAVs and they are postured to support the Marine Scan Eagle in the near future. And while the Air Force mans the facility, the mission is joint in every regard as they support the Army, Navy, Marines and other DoD agencies.

One challenge the 83rd CS faces is there's no place to send Airmen for training since there's no other facility of its kind. Their equipment is one-of-a-kind as well. By its nature, the job is very technical requiring months of additional training to produce a fully qualified Airman.

Instead of seeing this as a negative, the Airmen see it as an opportunity.

"UAV support is a new spin on comm," said Airman 1st Class Gabriel Jones. "It's great to see how comm equipment can be used in ways most technical controllers never dreamed of."

During the next two years, the number of UAV orbits is projected to increase more than 200 percent and that's only within the Air Force.

"When you see a UAV flying or see the video on your computer or up on the data wall, don't forget the dedicated personnel behind the scenes who make this possible and the vital role they play in the War on Terror," said Master Sgt. John Wagner, NCO in charge of the facility. "When you can actually see live operations happening in Iraq or Afghanistan, it's good to know our video dissemination has a crucial role in accomplishing the mission and saving lives."

IDIOT HAPPENLESS 500

By Chief Master Sgt. M. Kenui Balutski
48th Communications Squadron

RAF LAKENHEATH, **England** — If you've ever seen the 1985 movie "Vision Quest" you'll know that it's a great illustration of how focus and hard work can cause amazing results.

Just recently we had a vision quest of our own in the 48th CS. The goal was 500 days without a DUI.

It was affectionately dubbed the Idiot Happenless 500, or IHL-500, and e-mails were sent out almost every week to keep the unit focused on the prize. To kick it up a notch, the commander, Maj. Jon Sutherland, announced in January's commander's call that the senior NCOs would cook breakfast for the unit if they went the 500 days.

Could they do it? The unit had made it well over a year because good folks made sound decisions and kept their buddies from doing "the wrong thing."

At every opportunity the senior NCOs kept the heat on, daring the squadron to "put them in the kitchen." Then on Feb. 2, the checkered flag was in sight and the senior NCOs had to put their money where their mouths were. "We knew they could do it, but we had to wait until zero-hour before spending any money," said IHL-500 coordinator, Master Sgt. John Peterson. "We didn't want to be stuck with 30 dozen eggs and 15 irritated senior NCOs. That would have been a recipe for disaster."

Then came the magic hour at 6:30 a.m. Feb. 3 when the senior NCOs bought the goods and started to cook breakfast for the masses

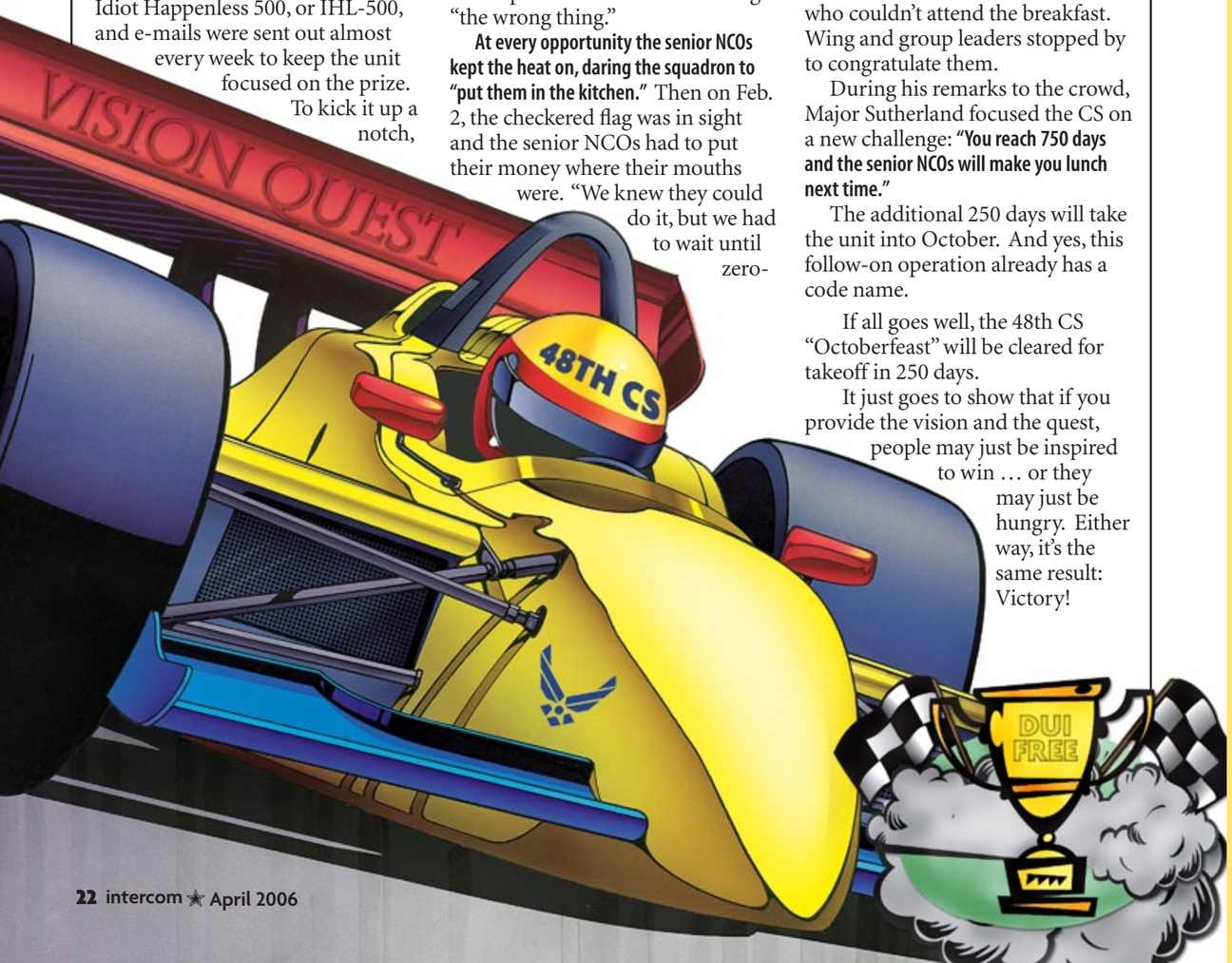
Spatulas sprung to life and designated delivery teams visited 24-hour workcenters to serve those who couldn't attend the breakfast. Wing and group leaders stopped by to congratulate them.

During his remarks to the crowd, Major Sutherland focused the CS on a new challenge: **"You reach 750 days and the senior NCOs will make you lunch next time."**

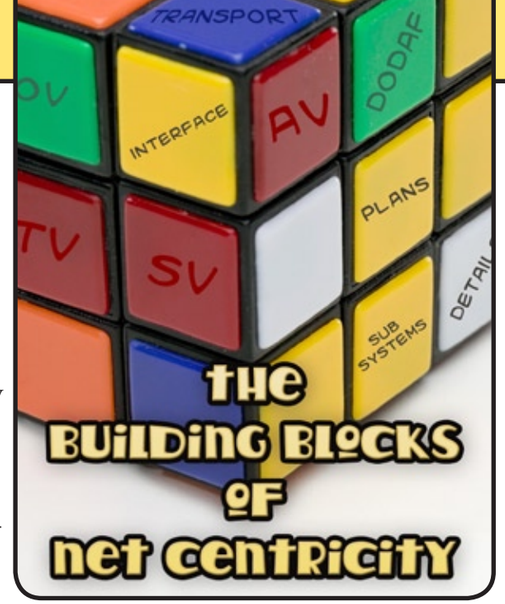
The additional 250 days will take the unit into October. And yes, this follow-on operation already has a code name.

If all goes well, the 48th CS "Octoberfeast" will be cleared for takeoff in 250 days.

It just goes to show that if you provide the vision and the quest, people may just be inspired to win … or they may just be hungry. Either way, it's the same result: Victory!



THE BUILDING BLOCKS OF NET CENTRICITY



By Mr. Tony Loyal
Air Force Communications Agency

SCOTT AIR FORCE BASE, Ill. —Networks are powerful systems that play a critical role in battlefield success, and mission effectiveness is increased dramatically as warfighters share quality, timely information.

Two building blocks of those powerful networks consist of enterprise architectures and the ConstellationNet that combine to create what is called net centricity.

Enterprise architectures

Enterprise architectures provide structure and design, and also provide repeatable patterns, that can be used to build complex structures such as information networks.

They force designers to think how the end product will be used before it's built and provide a roadmap for future development.

By providing a high-level view, architectures also enable decision makers to see what systems or applications are needed to provide a specific capability, where deficiencies exist, and where redundant functions or capabilities exist.

The move to enterprise architectures in the federal government began with the passage of the Clinger-Cohen Act of 1996. Clinger-Cohen was designed to improve the way federal agencies select and manage information technology resources.

The law mandated that agencies develop, maintain, and facilitate integrated architectures. The DoD was ahead of the rest of the federal government, having begun work on an architecture framework in 1995. The Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance Architecture Framework was released in June 1996. Prior to the release of the C4ISR Framework, standardization and interoperability did not exist among many DoD systems. The framework was intended to integrate the existing standardization efforts into a single work. Some of the existing efforts focused on software, others hardware, but the C4ISR Framework encompassed both.

A key feature of the framework is an integrated architecture that captures the major views:

- The **operations view, or OV**, is a description of tasks and activities required to accomplish missions.
- The **systems view, or SV**, describes systems and interconnections that provide or support DoD functions.
- The **technical view, or TV**, is the minimal set of rules governing the parts or elements in the architecture.
- A fourth view, the **all-view, or AV**, captures aspects that relate to all of the other views and provides an overall description of the scope and purpose of the architecture.

The framework also ensures that architecture definitions mean the same thing across organizations. The C4ISR Framework was renamed the Department of Defense Architecture Framework, or DoDAF, in 2004.

Individual services began work on their own enterprise architectures after the release of the C4ISR Framework.

ConstellationNet

ConstellationNet was originally known as the Air Force Infostructure Architecture and is one of three sub-enterprise architectures.

It provides enabling capabilities to the other two sub-enterprises —Warfighter Support and Operational Support.

ConstellationNet provides a way to connect all users. It provides a guideline for future development of applications and services by requiring them to be able to "plug in" somewhere in the ConstellationNet.

ConstellationNet addresses four key enterprise network capabilities:

- **Providing subscriber interface services** concerns functions such as invoking subscriber authentication services and providing a man-machine interface.
- The **perform network operations service** involves planning and managing systems and networks, providing information dissemination (distribution) services, and providing information assurance and network defense services.
- **Provide information transport services** addresses the transport of information and spectrum management.
- **Provide net centric enterprise services** relates to providing information computing services, information management services, and providing community of interest environment.

Providing warfighters with the means to have consistent access to needed information is the goal of ConstellationNet.

TUZLA: THE FORGOTTEN AIRFIELD
COMM AIRMEN MAINTAIN CONTACT

By Master Sgt. Chance Babin
401st Air Expeditionary Wing Public Affairs

TUZLA AIR BASE, Bosnia and Herzegovina — In the late 1990s, Tuzla Air Base was crawling with thousands of Airmen who helped maintain the base and airfield.

But now, airfield maintenance has moved into the hands of just 160 contractors, yet the Air Force still has a small presence here. Two of those Airmen are communicators deployed here from the 401st Air Expeditionary Wing at Aviano Air Base, Italy.

"Navigation aids and radio are essential to the mission, so it's critical to get good support from contractors and blue suiters," said Lt. Col. David Lowe, commander of Det. 1, 401st AEW. "Our job is to provide a safe and operable airfield for both NATO and EUFOR (European Forces)."

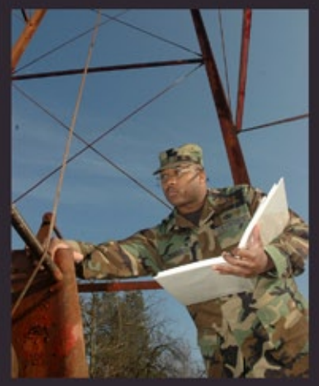
Staff Sgt. Mark Beecroft, a radio certifier, said not having the radio certified can hinder the mission, so it's imperative that radios are kept current with certifications.

"I have to have good communications and coordination with the contractors. They're the liaison between me and the air traffic controllers when performing certification," he said.

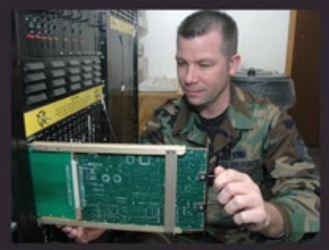
Staff Sgt. Mario Morris, a meteorological and navigational systems certifier, said he was surprised to see so many contractors on base, but that he recognized some of them from his military days. He said they all work as a team to keep Tuzla's airfields operational.

EUFOR'S STABILIZATION FORCE MISSION FOCUS

▸ To maintain a safe and secure environment. ▸ To support the international community in the performance of its mandates in the Multi-Year Road Map (the MYRM is a means of measuring progress in Bosnia and Herzegovina). ▸ To continue to train and restructure the armed forces in Bosnia and Herzegovina. ▸ To respond immediately to counter anti-Dayton non-compliant groups and institutions. ▸ To provide flexible military presence focused on critical areas.



Staff Sgt. Mario Morris inspects the harness of an antenna cable system for corrosion.



Photos by Master Sgt. Chance Babin

Staff Sgt. Mark Beecroft aligns a telephone card while performing an annual certification on Air Traffic Control and Landing Systems.

AFCA hosts course until Keesler resumes training this month

By Mr. Gerald Sonnenberg
AFCA Public Affairs

SCOTT AIR FORCE BASE, Ill. — After Hurricane Katrina slammed the Gulf Coast last August, the 333rd Training Squadron's advanced communications training courses at Keesler AFB, Miss., needed a temporary home.

Billeting for students at Keesler was in short supply, which placed the class schedule in jeopardy, so Col. Robert Steele, commander of the Air Force Communications Agency at Scott AFB, opened the Agency's doors and classrooms to the unit's instructors and students.

The first of two sessions of the Air Force's Communications Battlespace Management Course, or CBMC, was held at AFCA from Jan. 18 to Feb. 3 for 37 students in the grades of captain to major, as well as civilian equivalents. The second session began Feb. 13.

CBMC, formerly known as the Advanced Communications and Information Officer Training Course, or ACOT, is held six times per year.

The course revisits foundational knowledge relevant to field grade officers in the Communications and Information profession. The course format consists of prerequisite reading followed by an in-residence forum with presentations from C&I subject matter experts. This forum enables students to discuss issues they are currently facing, or soon will be.

The forum's final week includes guest speakers from the Scope Eagle program, which draws its speakers from senior communicators across the Air Force, as well as other services and government agencies. Scope Eagle is held in conjunction with CBMC five times per year. It hosts 20 students in the grades of lieutenant colonel to colonel, or the civilian equivalent, who are invited to attend.

Scope Eagle is the Air Force's top professional development course for the C&I career field. It provides a forum for senior leaders to engage in strategic discussions of Air Force and Joint C&I issues, as well as the future of the career field.

During the sixth CBMC of the year, Scope Eagle is replaced by Scope Warrior and involves more senior leaders, as well as the chief of warfighting integration and chief information officer for the Air Force.

"Members of the Agency and I are happy to provide a temporary home for the 333rd anytime, especially during this time of rebuilding," said Col. Steele. "These courses are essential in providing leaders with the knowledge they need to guide the Air Force into the future of information technology."

Training for both courses is expected to resume at Keesler AFB in April.

Rodney Mase from Scott AFB, Ill.; Maj. Joe Nelson, Hickam AFB, Hawaii; and Capt. Michael Hass, Peterson AFB, Colo., participate in an exercise during the course.

Photo by Janet Moreiko-Gagen / AFCA PA

Air Force Communications Service

INTERCOM

U.S. Air Force Aerospace Power for Peace

The only stories we don't cover are the ones we don't hear about

November 5, 1971

Time Machine

Going back in time is a real hoot with old paper

By Ms. Karen Petitt

SCOTT AIR FORCE BASE, Ill. — The beauty of newspapers is that you can look back and giggle at some of the craziest things people used to put in them. It's amazing to see how far even journalistic standards have come.

I've been scanning papers from the early '70s when the "intercom" was a 20-page, 11x17 collection of girlie photos, cartoons, house ads, safety warnings, poets corners and lots of personal letters and notes from people about their lives.

Of course there was the news about pay and benefits, conferences, awards and even the Combined Federal Campaign reports.

However, in this one particular issue there's an article about pseudofolliculitis, which is a term I've used for any kind of ailment or malady I might have just because it's a great word to pronounce.

There's an article on social actions awareness, alcohol problems and even a "ding dong award." Yep, you heard right. It was an award that went to anyone caught not wearing a seatbelt. Some poor sergeant was the first one to receive it so he got his picture in the paper. Apparently the idea was to have this "ding dong" catch another person not wearing a seat belt and then pass it along. It didn't take long for people to catch on to wear their seatbelts.

One of my favorite entries is a photo of a sergeant who made a poster after his baby girl was born. Apparently the unit had been undergoing budget reductions and he, likewise, was not about to hand out cigars. Hence, the sign said: "It's a girl. Branham's cost reduction. In view of the following: 1. Deutsche mark reduction, 2. Cost of raising another child, 3. Increasing cost of educating said child, 4. General disatisfaction with age old custom involved ... the following cost reduction program is hereby initiated: Roll your own."

The one thing hopefully readers are glad for in the modern era is type styles that make stories much easier to read. Nonetheless, looking back through old papers is not only educational, but entertaining too. So, here are a few more gems actually seen in the "intercom" from 1971.

UGH! Maj. William D. Cobb of the 1833 EI Sq. shows why he finished fourth in the ugly-commander contest. Votes were 1 cent each and the money, a total of $512.62, went to fight drug abuse.

Green weenie of the week award

A sergeant with the AFCS's Det. 7 came up with a clever award for people who received unwanted tasks involving workloads "above and beyond" the call of duty, such as grass mowing and trash pick up. Maybe this is something that could be revived? I think there'd be a lot of green weenie awards presented throughout the Air Force then ... although we probably should call it the "blue" weenie award.

NEW YEAR'S RULE — This lovely damsel feels that it is a neat, well-groomed appearance — not a ruler — that most people use to judge the measure of a person. Obviously, she has taken her own advice.

You think this is ridiculous?

Showing pin-up girls is one thing, but the captions are just as wild. One photo I saw was a lady in her bra leaning on a pillow and the caption said that she was "well cushioned." In another photo, an Airman is reading a newly installed bulletin board full of safety tips and news items. But lo, what's right smack dab in the middle of the board? You guessed it — a naked lady.

News Briefs

WE REMEMBER

2 COMM AIRMEN KILLED IN AFRICA

TWO COMMUNICATORS known for their "ready smile" and "quiet leadership" were killed Feb. 17 in a helicopter crash while supporting Operation Enduring Freedom in Djibouti, Africa.

Senior Airman Alecia S. Good, 23, of Broadview Heights, Ohio, was deployed from the 92nd Communications Squadron at Fairchild Air Force Base, Wash.

Senior Airman Alecia S. Good

Staff Sgt. Luis M. Melendez Sanchez, 33, of Bayamon, Puerto Rico, was deployed from the 1st Communications Squadron at Langley AFB, Va.

Both were radio operators and on board the helicopter to provide satellite communication back to the Joint Operations Center at Camp Lemonier, said Army Sgt. Edgar Torres, also a radio operator.

"The pilots have line-of-sight communication, but there's a distance limitation. With the satellite communication, they can be anywhere. It's more efficient."

Having been deployed to the Combined Joint Task Force-Horn of Africa mission for just six days, it was the first mission for both Airmen. Airman Good leaves a 2-year-old daughter behind and Sergeant Sanchez, a wife and sons.

Staff Sgt. Luis M. Melendez Sanchez

Seven Marines also died when two CH-53 Sea Stallion helicopters crashed into the Gulf of Aden. Two crewmembers survived and were rescued shortly after the incident and taken to Camp Lemonier, Djibouti.

The CJTF-HOA is responsible for fighting terrorism in Djibouti, Eritrea, Ethiopia, Sudan, Kenya, Tanzania, Uganda and Somalia. This region has been used by terrorists as a place to hide, recruit, and stage attacks. The cause of the crash is under investigation. Officials said there was no indication of hostile fire and visibility was good with light wind. *(AFPN)*

MAIL CALL

Staff Sgt. Nic Raven / 1st CTCS

Army Sgt. Stephanie Zolnak is part of a joint-service team working postal issues for members assigned to the Combined Joint Task Force-Horn of Africa in Djibouti. CJTF-HOA's mission is to combat terrorism and help bring stability in the region through civil-military operations and support of non-governmental agencies.

AMBASSADORS

AIRMEN DONATE TO THAI CHILDREN

AIRMAN 1ST CLASS Brock Wood seems totally at home as a goodwill ambassador for the Air Force when he helped deliver a few supplies to an elementary school in Thailand.

The computer specialist with the 3rd Communications Squadron at Elmendorf AFB, Alaska, joined 10 other Airmen for the visit Feb. 10 when they were able to take a break from participating in the Cope Tiger '06 exercise.

"It was nice that I could make everyone so happy by simply shaking their hand," said Airman Wood. "I don't think that I've ever had that much attention in my life."

Cope Tiger is an annual exercise at Korat Royal Thai Air Base designed to hone flying skills and international cooperation between the U.S., Thailand and Singapore.

More than 300 U.S. military members donated cash to help the children, but only a select few could deliver the goods to the Ang Huay Yang Elementary School. They were able to donate a refrigerator, overhead projector and a variety of sports equipment. *(Master Sgt. Adam Johnston, CT-PA)*

WHAT YOU NEED TO KNOW

- Title: "Lasting Heritage ... Limitless Horizons: A Warfighter's Vision"
- It replaces "Vision 2020"
- 6 priorities are outlined:
  - Protect & respect our heritage
  - Maintain razor-sharp focus on the Global War on Terror
  - Continue to develop Airmen
  - Recapitalize and modernize AF inventory
  - Transform our organizations
  - Expand our role in cyberspace
  - Maintain our spirit of innovation
- Why you should read it: Because it provides a clear explanation of the Air Force's mission, history and plans for the future

Check out the document here:

http://public.afca.af.mil/intercom.htm

PRACTICE

DICE '06 TESTS COMM SYSTEMS

THE ANNUAL Defense Interoperability Communication Exercise 2006 ends April 14. DICE promotes joint interoperability among military services, combatant commands, Department of Homeland Security, and local and state first responders.

The Defense Information Systems Agency's Joint Interoperability Test Command is the designated certifier for all communications equipment and systems.

DICE is the largest communications exercise with a goal of creating interoperability procedures that ensure robust support for the Global War on Terror efforts and responses to natural disasters such as Hurricane Katrina. Testing is conducted in a simulated Joint Task Force network that mimics networks currently deployed in support of various ongoing U.S. operations throughout the world. *(DISA PA)*

TARGET ASSESSMENTS

F-16 PODS BECOME 'EYES' OVER IRAQ

THE AIR FORCE'S F-16s at Balad Air Base, Iraq, have expanded their capabilities by performing non-traditional intelligence, surveillance and reconnaissance missions, or NTISR.

In a conflict where dropping a bomb is not always the best answer, this use of the F-16 is proving to be a vital tool for forces on the ground. It also saves critical time in target assessments. The sensor that is used—the litening pod—contains a laser used to guide munitions to their targets. The difference now is the targeting pods are being used to gain valuable information on an elusive enemy and give real-time information to commanders on the ground. While Balad's F-16s cover the entire country of Iraq, they're often used in base defense. *(Airman 1st Class Jason Ridder, 332nd AEW PA)*

COMPUTER SECURITY

SUMMER'S CYBER BOOT CAMP

FORTY YOUNG MEN AND WOMEN from across the country will focus on a futuristic "cybercraft" as they participate in the 2006 Class of the Advanced Course in Engineering Cyber Security Boot Camp.

"The ACE was developed in 2002 to address the challenge of President Bush's National Strategy to Secure Cyberspace by developing the top students in Air Force, Army and Navy pre-commissioning training programs, in addition to the best among civilian college students, into the next generation of cyber security leaders," said. Dr. Kamal Jabbour, principal computer engineer in the Cyber Operations Branch at the AFRL Information Directorate.

ACE 2006 students will spend the summer in Rome, N.Y., studying the analytical and scientific foundations of cybercraft. Lectures include legal and policy issues, cryptography, network defense and attack, steganography, analysis of malicious code, and wireless security. The ACE culminates with a two-day capstone cyber security exercise, or "Hackfest." *(Mr. Francis L. Crumb, AFRL PA)*

speckled trout aircraft retires

No. 61-2669

After being a communications test bed aircraft for more than 31 years, with 31,000 flying hours, it retired from the AF inventory Feb. 10.

JOINT WARFARE

'KEYSTONE' COURSE DEVELOPS E-9s

In an effort to share the experiences and knowledge of the services' senior leaders, the Joint Chiefs of Staff in 1982 directed the National Defense University to establish a professional military education program for general and flag officer selectees, now known in military circles as Capstone.

Recently, the university added a course for E-9s called Keystone; the first class met Jan. 30. It parallels the Capstone course but it focuses on "those that do," said Bonnie Swanson, vice director for Pinnacle, Capstone and Keystone.

The course focuses on the joint environment as Marine Corps Sgt. Maj. Thomas Hall can vouch the need for. He said his early training with the armored infantry rarely brought him together with other services. But, now he says it's as easy to call in close air support from his own service as it is from the Air Force, Navy or Army.

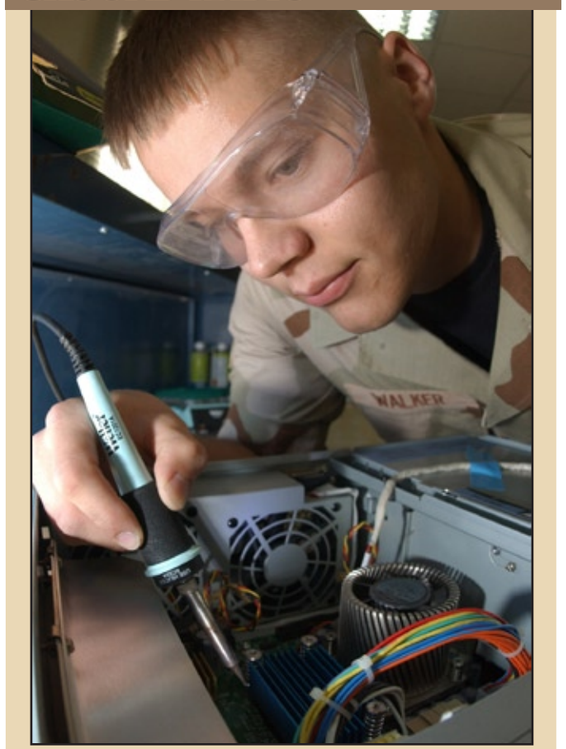
Keystone students visit the combatant commands, joint task forces and senior leadership (both officer and enlisted) in the Washington, D.C., area to explore the relationships and challenges of operating in a joint environment.

Students toured the Langley AFB, Va., command and control center, which demonstrated how aircraft are part of the integrated air picture, a key element that highlights the Air Force's capability to put together the war effort.

Command Sgt. Maj. Neil Citola of the 3rd Armored Corps at Fort Hood, Texas, said the visit was an impressive experience. "As dynamic an institution that I believe the Army to be, we are still a lot about brute force. When I look at the technological advances of our sister services (I hope the Army) will embrace this 'joint' thing."

Chief Master Sgt. Rod McKinley, Pacific Air Forces command chief, added, "Learning what other services bring to the fight makes us more efficient senior leaders for (our services)." *(Mr. Matthew R. Weir, 1st FW PA)*

GROUND RADIO



Airman 1st Class Anthony Nelson Jr. / 354th CS

Senior Airman Morgan Walker solders on an operator's workstation processor in Southwest Asia. He's a ground radio maintenance technician assigned to the 379th Air Expeditionary Wing and is deployed from Lackland AFB, Texas.

EDUCATION

INFORMATION RESOURCES MANAGEMENT COLLEGE FOR LEADERS

COMMUNICATIONS AND information leaders looking to broaden their skills should look into applying for the Information Resources Management College, which is the largest of four graduate-level colleges that comprise the National Defense University in Washington, D.C.

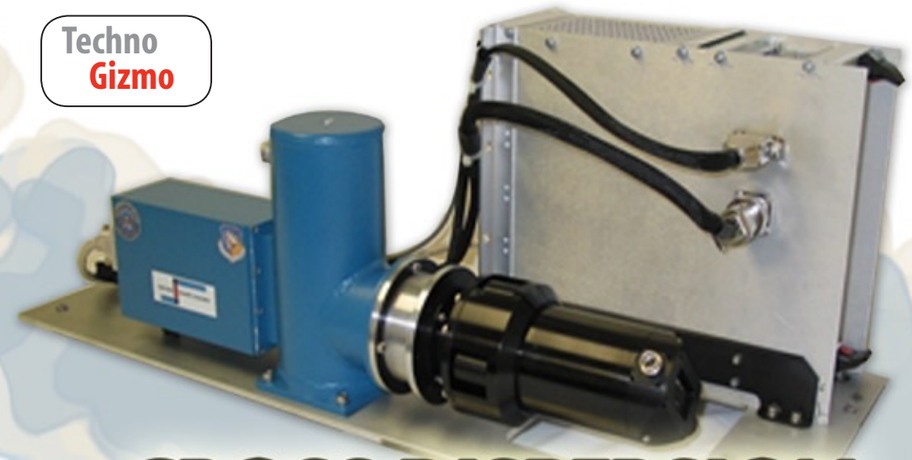
Col. John L. Hayes, Air Force Reserve Command, said, "From my perspective, the IRMC programs offer one of the very few opportunities for senior comm and info leaders to expand their technical knowledge. Most of us run out of training opportunities after such courses as the Communications Battlespace Management Course at Keesler AFB, Miss. I've found the IRMC to be beneficial in helping me in my role as the Chief Information Officer for the AFRC. In addition, we have at least four members of the AFRC/SC staff who have either completed their CIO Certificate program or are in some state of program completion. I only wish I had taken the courses earlier in my career."

www.ndu.edu/irmc

The college enrolls military and middle-to-senior level civilian managers from the DoD, as well as personnel from other government agencies and organizations, foreign defense ministries, and private sector firms engaged in business with the government.

The IRM College offers graduate courses and certificate programs including: Chief Information Officer Competencies; Information Assurance and Chief Information Security Officer Programs; Organizational Transformation; Enterprise Architecture; Information Technology Project Management; and Advanced Management Program. *(Lt. Col. Tony Buenger/Dr. Judy Carr, IRMC)*

Techno Gizmo



CROSS DISPERSION PRISM SENSOR

What is it?

The Cross Dispersion Prism sensor, according to William Ewing, one of the principal developers, is a passive electro-optical infrared sensor that allows for continuous surveillance of an area. It will be used to detect, locate, identify and classify energetic events, such as explosions, in real-time, through an application of rapid spectral and temporal sensing. During the past two years, the Air Force Research Laboratory engineers at Hanscom AFB, Mass., have developed this tool that will provide troops superior battlefield awareness with real-time threat information.

How does it work?

Using pseudo-imaging, the sensor registers an explosion's spectral/temporal signature, or fingerprint. Then it identifies the explosion and classifies it based on information compiled by the lab in a library of spectral images. The sensor also reveals the location, allowing battlefield commanders to make decisions based on highly accurate, reliable information.

"The CDP tells the story of how an explosion developed," said Dr. Ewing. "It allows us to tell the difference between artillery, bombs, small arms fire, etc. We used to use only temporal signatures to determine the details of these events, so this technology offers a significant advantage over what has been done before."

Considered a wide field-of-view sensor, it's a unique optical assembly that senses light from the visible through the infrared range by placing a pair of prisms in front of a high-speed commercial camera (400 to 500 images per second). The data is then processed by a computer and calculates a probability of what the event was and its location. In addition, the system is fairly inexpensive and needs little maintenance. In tests so far, the system has proven highly accurate and has a low false-alarm rate, which could lead to several potential applications.

The original idea was to place the sensor on top of a pole for surveillance of a perimeter, like around the Green Zone in Iraq, or on a vehicle. But, when officials saw how well the sensor performed, the potential uses grew.

How will it be used?

One primary application will be to equip the system on unmanned aerial vehicles, which could help the UAV conduct surveillance of a broader area, providing greater visibility and better situational awareness. The system has already been tested aboard a Naval Air Systems Command Aerostar UAV in 2005, at Patuxent River Naval Air Station, Md.

Other applications could be in missile defense, early launch detection, missile typing, and bomb damage and kill assessment, as well as astronomy, space observation and nuclear testing verification, said program engineers.

The lab's classification of larger threats, including foreign and domestic long-range missiles, will begin in spring 2006.

What's ahead

"The great thing is that we are ahead of schedule and on budget," said Mr. Darin Leahy, program manager. "When we first started, we were a little skeptical about how well it would work, but, in a month, we [had the first one] working really well. With everything that we have seen so far, this technology will be a great benefit to the Air Force as well as other services."

Final testing is scheduled for September at U.S. Army Yuma Proving Ground, Ariz.

Source: Ms. Laura L. Lundin, Air Force Research Laboratory Public Affairs

STAR SPANGLED BANNER

Words by Francis Scott Key, 1814 * Music by John Stafford Smith

O say, can you see,
by the dawn's early light,
What so proudly we hailed at
the twilight's last gleaming?

Whose broad stripes and
bright stars, through
the perilous fight,
O'er the ramparts we
watched, were so
gallantly streaming?

And the rocket's red glare, the
bombs bursting in air,
Gave proof through the night
that our flag was still there.

O say does that star spangled
banner yet wave
O'er the land of the free, and
the home of the brave?

On the shore dimly seen
through the mists of the deep.
Where the foe's haughty host
in dread silence reposes,

What is that which the breeze,
o'er the towering steep,
As it fitfully blows,
half conceals, half discloses?

Now it catches the gleam
of the morning's first beam,
In full glory reflected now
shines in the stream:

'Tis the Star-Spangled Banner!
O long may it wave
O'er the land of the free and
the home of the brave.

And where is that band
who so vauntingly swore
That the havoc of war and
the battle's confusion

A home and a country
should leave us no more?
Their blood has washed out
their foul footsteps' pollution.

No refuge could save the
hireling and slave
From the terror of flight,
or the gloom of the grave:

And the Star-Spangled
Banner, in triumph doth wave
O'er the land of the free and
the home of the brave.

O thus be it ever when
freemen shall stand
Between their loved homes
and the war's desolation!

Blest with vict'ry and peace,
may the Heaven-rescued land
Praise the Power that hath
made and preserved
us a nation.

Then conquer we must
when our cause it is just
And this be our motto:
"In God is our Trust."

And the Star-Spangled Banner
in triumph shall wave
O'er the land of the free and
the home of the brave!

For more information about The National Anthem Project, see www.tnap.org

intercom

e Air Force C4ISR community ★ April 2006

THE BIG PICTURE

SEEKING A BALANCE IN EXPEDITIONARY COMM ★ CORPORATE AMERICA & SPACE ASSETS

HARNESSING THE POWER OF CYBERSPACE ★ THE RAILWAY OF INFORMATION TECHNOLOGY

SPECIALIZED COMM NEEDS ★ SPECTRUM ACCESS ★ DIVERSITY IN USAFE ★ AND MORE!